CLAIMS

1.   A method for processing an information sequence with an iterative decoder, comprising:

5   dividing the information sequence into a current window and at least one additional window;

selecting the current window of the information sequence; and

computing at least one metric value for a current recursion of the current window based on metric values from the additional window of the

10   information sequence, wherein the additional window is from a past iteration.

2.   The method of claim 1, further comprising:

initializing a training recursion for the current window based on the metric values from the additional window.

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3.   The method of claim 1, further comprising:

processing the metric values from the additional window of the information sequence.

20   4.   The method of claim 3, further comprising:

storing the processed metric values.

5.   The method of claim 2, further comprising:

determining a value step number of the metric values from the

25   additional window; and

determining an initialization step number for initializing the training recursion for the current window.

6.   The method of claim 3, wherein the processing step comprises:

30   assigning the metric values from the additional window of the information sequence.

7.   The method of claim 2, further comprising:

determining an index of the metric values of the additional window; and

initializing the training recursion of the current window based on the

index of the metric values of the additional window.

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8.   A method for processing an information sequence, comprising

selecting a current window of the information sequence during a

current iteration;

selecting an additional window of the information sequence, wherein

10   the additional window is for a future iteration;

recursively computing a metric value for the current window; and

processing the metric value for the current window for use in the

additional window.

15   9.   The method of claim 8, further comprising:

storing the processed metric value.

10.   Computer program product in a computer usable medium for

processing an information sequence with an iterative decoder comprising:

20   computer program code that divides the information sequence into a

current window and at least one additional window;

computer program code that selects the current window of the

information sequence; and

computer program code that computes at least one metric value for a

25   current recursion of the current window based on metric values from the

additional window of the information sequence, wherein the additional window

is from a past iteration.

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11.   The program of claim 10, further comprising:

computer program code that initializes a training recursion for the current window based on the metric values from the additional window.

5   12.   The program of claim 10, further comprising:

computer program code that processes the metric values from the additional window of the information sequence.

13.   The program of claim 12, further comprising:

10   computer program code that stores the processed metric values.

14.   The program of claim 11, further comprising:

computer program code that determines a value step number of the metric values from the additional window; and

15   computer program code that determines an initialization step number for initializing the training recursion for the current window.

15.   The program of claim 12, further comprising:

computer program code that assigns the metric values from the

20   additional window of the information sequence.

16.   The program of claim 11, further comprising:

computer program code that determines an index of the metric values of the additional window; and

25   computer program code that initializes the training recursion of the current window based on the index of the metric values of the additional window.

17.   Computer program product in a computer usable medium for processing an information sequence comprising:

computer program code that selects a current window of the information sequence during a current iteration;

5   computer program code that selects an additional window of the information sequence, wherein the additional window is for a future iteration;

computer program code that recursively computes a metric value for the current window; and

computer program code that processes the metric value for the current

10   window for use in the additional window.

18.   The program of claim 17, further comprising:

computer program code that stores the processed metric value.

15   19.   An iterative decoding system, comprising:

means for dividing an information sequence into a current window and at least one additional window;

means for selecting the current window of the information sequence; and

20   means for computing at least one metric value for a current recursion of the current window based on metric values from the additional window of the information sequence, wherein the additional window is from a past iteration.

25   20.   The system of claim 19, further comprising:

means for initializing a training recursion for the current window based on the metric values from the additional window.

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21.   The system of claim 19, further comprising:

means for processing the metric values from the additional window of the information sequence.

5   22.   The system of claim 21, further comprising:

means for storing the processed metric values.

23.   The system of claim 20, further comprising:

means for determining a value step number of the metric values from

10   the additional window; and

means for determining an initialization step number for initializing the training recursion for the current window.

24.   The system of claim 21, further comprising:

15   means for assigning the metric values from the additional window of the information sequence.

25.   The system of claim 20, further comprising:

means for determining an index of the metric values of the additional

20   window; and

means for initializing the training recursion of the current window based on the index of the metric values of the additional window.

26.   A turbo decoding system for processing an information sequence, comprising:

means for selecting a current window of the information sequence during a current iteration;

5   means for selecting an additional window of the information sequence, wherein the additional window is for a future iteration;

means for recursively computing a metric value for the current window; and

means for processing the metric value for the current window for use in

10   the additional window.

27.   The system of claim 26, further comprising:

means for storing the processed metric value.

15   28.   A turbo decoding system comprising:

at least one interleaver;

at least one de-interleaver;

at least one decoder;

means for dividing an information sequence into a current window and

20   at least one additional window;

means for selecting the current window of the information sequence; and

means for computing at least one metric value for a current recursion of the current window based on metric values from the additional window of

25   the information sequence, wherein the additional window is from a past iteration.